The ripple effect:

How managers' affective reactions to manager-level controls have a contagious impact on subordinates

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Abstract:

We provide evidence on the interrelatedness of management controls at different levels of the organizational hierarchy. Specifically, we investigate whether managers' affective perceptions (managers' positive and negative feelings) pertaining to the manager-level management control system impact their subordinates' control outcomes. We argue that subordinates are influenced by their managers' affective perception when manager-subordinate contagion is high. Further, we predict that manager-subordinate contagion is negatively related to employees' independent understanding about the operational-level management control system and negatively related to the organization's use of culture controls. We test our hypotheses using field data. Results support our predictions. Our study contributes to the MCS literature by highlighting the important role of managers as information conduits within management control systems and illustrate the rippling effect of managers' reactions to manager-level controls on the effectiveness of operational-level controls.

1. INTRODUCTION

Prior research has shown that operational-level employees' behavior is directly influenced by the operational-level management control system (MCS). In this study, we complement this extant research by examining the impact of managers' perceptions of the *manager-level* MCS on *operational-level* employees' control outcomes using field data. We define managers' perceptions of the manager-level MCS as managers' positive and negative feelings pertaining to the manager-level MCS, including perceptions of the fairness and trustworthiness (hereafter, MCS affect). We propose that there are high levels of interrelatedness of controls even between hierarchical levels which have a contagious impact on employee control outcomes like job satisfaction. This ripple effect is stronger or weaker depending on the design of the organizational MCS. Improving our understanding of what influences control outcomes is important because subordinates' control outcomes like job satisfaction have been shown to be the key factors leading to organization success.

We predict that managers' MCS affect will influence employees' control outcomes via contagion, an influencing process whereby individuals influence the emotions or behaviors of others through the conscious or unconscious induction of emotional states and behavioral attitudes (based on Schoenewolf, 1990). We expect that subordinates are influenced by their managers' MCS affect because managers hold an important position within the workgroup and employees therefore respect and admire their managers as high-status employees. As a result, our first hypothesis predicts that managers' MCS affect is likely to influence their subordinates' overall control outcomes via contagion. Note that the directional impact of managers' MCS affect on subordinates' control outcomes varies based on the valence of the managers' MCS affect. In other

words, we expect positive (negative) managers' MCS affect to result in more positive (negative) subordinates' control outcomes.

To better understand the contagion process we also examine the factors that influence the extent of manager-subordinate contagion by focusing on the role of the operational-level MCS. Broadly, we argue that manager-subordinate contagion of managers' MCS affect has an informational role within the MCS. In other words, managers' MCS affect provides information to subordinates about the organization's MCS and manager-subordinate contagion is the process by which this information is disseminated. Therefore, we expect that manager-subordinate contagion of managers' MCS affect exerts a larger (smaller) impact on employee behavior when employees possess less (more) information about the MCS. That is, we expect the role of managers' MCS affect on subordinates' behavior to be inversely related to the amount of information subordinates have about the MCS. We specifically examine two elements of the MCS environment that influence employees' information. First, we examine subordinates' understanding of the MCS which is defined as the extent to which subordinates comprehend the organization's policies, practices and values (Merchant and Van der Stede 2003; Farell, Kadous and Towry 2008; Farell, Kadous and Towry 2012). We hypothesize that manager-subordinate contagion is more likely (less likely) to occur when subordinates' understanding of the MCS is lower (higher). Second, we examine the extent of culture controls included in the MCS which are defined as the actions undertaken by the organization to promote the organization's culture, or shared assumptions, beliefs, and expectations (Ouchi 1977; Merchant and Van der Stede 2003; Fiol 1991; Schein 1985). Culture controls align employees' preferences with the organization's preferences and include employee selection and training (Prendergast 2009; Akerlof and Kranton 2005; Campbell 2012; Abernethy, Dekker, and Schulz 2015). We hypothesize that manager-

subordinate contagion is negatively related to the extent of culture controls, as culture controls decrease subordinates' reliance on their managers' MCS affect as a source of information about the organization by providing employees with information about the organization's values, practices, and expectations.

We collect our data by conducting a multi-method field study at a North American retail pharmacy that has 14 sub-business units across 7 geographical locations that each execute the same strategies. We started our multi-step data collection process by conducting in-depth semi structured interviews with 25 company employees including 12 of the 14 sub-business unit managers. These interviews provided insight into the organization and helped with the development of our survey.

The next step of our data collection involved conducting manager and subordinate surveys. Through a diligently executed survey collection process we received 141 completed surveys including all 14 sub-business unit managers, which enabled us to match those managers to 110 employee surveys, allowing us to examine manager-subordinate contagion for 14 real-world workgroups with varying characteristics. Finally, we collected archival data from the organization (i.e., workgroup descriptive statistics), and archival data from publicly available sources (i.e., unemployment data).

We use regression analysis to test our first hypothesis, which focuses on the relationship between managers' MCS affect, manager-subordinate contagion and subordinates' control outcomes. While prior research has investigated a variety of control outcomes, including subordinates' effort exertions, job performance, and creativity, we focus on job satisfaction as a proxy for job performance, consistent with prior research showing that job satisfaction impacts job performance (e.g., Judge, Thoresen, Bono and Patton, 2001; Farrell and Rusbult, 1981; Kalleberg, 1977). The use of job satisfaction as a proxy for control outcomes offers several important

advantages in our research setting as, (1) it can be used as a proxy for task performance for a heterogenous group of employees who are engaged in non-overlapping sets of tasks, eliminating the ability to use task-specific performance measures, and (2) it is not subject to sampling biases that may result from the limited availability of task-specific performance measures. Further, as the organization uses role-specific performance measures, there is no universal set of performance measures that the organization applies to all employees, eliminating our ability to directly measure employee performance. Thus, we draw from prior research showing that job satisfaction is an appropriate proxy for control outcomes.

Results confirm our first hypothesis and support the notion that managers' MCS affect influences subordinates' control outcomes via manager-subordinate contagion. Results indicate that subordinates who exhibit high manager-subordinate contagion indicate lower job satisfaction when their manager's feelings about the MCS are lower than those of other managers. Specifically, among subordinates whose managers' MCS affect is below median experience, the presence of high contagion decreases subordinates' job satisfaction by approximately 15%.

Next, we use logistic regression to jointly examine our second and third hypotheses, which investigate the impact of management controls on manager-subordinate contagion. Measures of management controls are collected on the manager survey. We limit our investigation of management controls to subordinates' understanding of the MCS and culture controls, as these are least likely to be subject to heterogeneity across workgroups or tasks in our specific setting. To measure manager-subordinate contagion, we use the subordinate survey to capture the extent to which subordinates are influenced by their managers' emotions and feelings about the MCS. Because the effects of contagion are contingent on the direction of managers' emotions, we pair these responses with their managers' feelings about the MCS as captured on the manager survey.

Thus, an advantage of our research setting is that it allows to collect survey data from manager-subordinate pairs.

Results confirm our second and third hypotheses and support the notion that the organization's MCS influences manager-subordinate contagion. Consistent with H2, results indicate that subordinates' understanding of the MCS negatively impacts manager-subordinate contagion. Specifically, results suggest that, on a seven-point scale, a one-point increase in subordinates' reported understanding decreases the probability a subordinate experiences high manager-subordinate contagion by approximately 29%. Further, we find evidence supporting H3, as results indicate that the extent of use of culture controls negatively impacts manager-subordinate contagion. Specifically, results suggest that a one-point increase in managers' reported use of *Culture Control* decreases the probability a subordinate experiences high manager-subordinate contagion by approximately 19%. Taken together, our results provide support for the notion that manager-subordinate contagion informs subordinates about the organizations' MCS and as a result has a more limited role on subordinates' control outcomes when subordinates' independent information and understanding about the organization is high.

This paper contributes to the literature on management accounting systems in several ways. First, we uncover another factor that influences employee control outcomes, manager MCS affect. As a result, we complement the literature examining how the MCS influences employee choices. Our results indicate that when manager-subordinate contagion is high, managers' affective responses to the manager-level MCS impacts their subordinates' control outcomes, even though the manager-level MCS has no impact on subordinates. Our results illustrate the potential for managers' reactions to their controls to "ripple" throughout their workgroups, providing further

evidence of the far-reaching consequences of the manager-level MCS (Christ and Vance 2018) and illuminating the role of manager-subordinate relationships.

Second, we answer Hopwood's (1974) call for research exploring the interrelationships between the controls operating at different levels of an organizational hierarchy by showing that operational-level employees' reactions to the operational-level MCS are influenced by their managers' affective response to the manager-level MCS. We also contribute to the literature that focuses on the interrelatedness of individual controls by showing that controls do not only influence each other when they are part of the same manager-level MCS; interrelatedness of controls also operates beyond organizational levels, further stressing the importance of conceptualizing *all* the controls as an interrelated system.

Third, we provide evidence on how the characteristics of the organization's MCS impact the extent of manager-subordinate contagion and thereby contribute to the literature on contagion. There is a rich body of literature that examines the factors that influence the extent of contagion in a work environment, for example gender and charisma (e.g., Hatfield et al. 1994, Doherty et al. 1995). However, this line of research has mainly focused on the impact of the human element, not on the influence of the MCS. Since the MCS is something that organizations can control and monitor, this finding has important implications for management.

Further, our study also contributes to the literature on the directing role of the MCS (Bol and Loftus 2019). We complement prior literature on direction within the MCS (e.g., Farell, Kadous and Towry 2008; Farell, Kadous and Towry 2012) by providing further evidence that manager-subordinate relationships directs employee behavior (Chirst and Vance 2018) . We find that subordinates' understanding of the MCS and the use of culture controls negatively impacts manager-subordinate contagion, which indicates that when employees' own understanding of the

organization's controls and values is low, the operational-level MCS lacks direction, and as a result employees will rely on their managers as information sources to fill this void.

These findings also provide several insights for managers. Although contagion is not necessarily problematic ipso facto, reliance on managers as information sources can result in unintended consequences for the organization when managers' affective perceptions of the manager-level MCS are negative. Our field evidence provides strong evidence of the potentially unintended consequences of managers' negative MCS affect on subordinates' control outcomes, as we show a "ripple effect" of managers' MCS affect via manager-subordinate contagion throughout the organization. Our evidence also informs managers considering changes to the manager-level MCS by showing the potential ripple effect such changes throughout the organization when manager-subordinate contagion is high.

The remainder of the paper is organized as follows. Section 2 discusses related literature and develops our hypotheses. Section 3 discusses our research methodology, and Section 4 presents results. Section 5 concludes.

2. BACKGROUND AND HYPOTHESES DEVELOPMENT

Management employee controls are organizations' actions undertaken to increase the probability that employees' behavior is consistent with the organizations' desired objectives (Flamholtz 1983; Otley and Berry 1980), and the combination of management employee controls used by an organization comprises the organization's management control system (MCS) (Bol and Loftus 2019)[1].MCSs consist of, for example, rules and procedures, monitoring systems, financial and non-financial incentives, as well as culture controls comprising of training and selection,

[1] We refer to Management Control System as MCS and Management Control Systems as MCSs.

shared assumptions, beliefs, and expectations (Ouchi 1977; Merchant and Van der Stede 2007; Prendergast 2009). These controls are installed to direct, motivate and enable employees who might otherwise be unable or unwilling to behave in the desired way (e.g., Fisher, 1998). Ample research focuses on management controls in isolation (e.g., Ittner and Larcker 1998; Towry 2003; Presslee, Vance and Webb 2013) or as a system (e.g., Widener 2007; Grabner and Moers 2013) and their ability to facilitate and influence employee behavior and decision-making.

As organizations are composed of many different groups of employees (e.g., executives, managers), prior literature has long recognized that MCSs target employees at different levels of the organization, namely the corporate, management, and operational levels (Fisher 1998; Walsh and Steward 1990; Ansari 1977). Corporate-level employees include the CEO and other corporate officers who develop the organization's objectives and strategies, whereas manager-level employees consist of profit-center, division, and strategic business unit managers who execute the organization's objective and strategies (Fisher 1998; Merchant 1985). Operational-level employees form the lower echelons of the organization, and managers are responsible for overseeing the actions of operational employees (hereafter, subordinates) to ensure that their behavior is congruent with the organization's objectives.

While each level of the organization may be subject to unique management controls, emerging research indicates that the impact of management controls is not isolated to employees within the targeted group. For example, Christ and Vance (2018) examine the impact of manager-level incentives on operational employees' effort and find that employees with high-quality manager-employee relationships exert greater effort when their manager faces a penalty than a bonus. Overall, Christ and Vance (2018) show that individual manager-level controls impact subordinates' effort, suggesting that manager-level controls may have far-reaching consequences

on other groups of employees' behaviors. Similarly, Hopwood (1974) argues that manager-level controls are likely to affect operational-level employee control outcomes, and states, "It is…impossible to provide any adequate understanding of managerial evaluative behaviors without also considering the complex nature of the interrelationships between different levels of an organizational hierarchy (page 487)." We answer Hopwood's (1974) call for research exploring the interrelationships between different levels of an organizational hierarchy by examining how managers' perceptions of the manager-level MCS impact operational-level outcomes.

MCS Affect

In addition to triggering reactive behavior, prior literature has also shown that an organization's MCS induces affective states (e.g., feelings and emotions), and that these affective states influence control outcomes. Affective states can arise for a range of feelings and in response to a variety of management controls. For example, prior research has shown that incentives and performance evaluation can impact employees' feelings about fairness, which, in turn, influence control outcomes (Long, Bendersky, and Morrill 2011; Kaplan and Atkinson 1998; Lind and Tyler 1988; Lau and Lim 2002). Other research has shown that employees' affective response to performance evaluation influences outcomes (Loftus and Tanlu 2018; Kluger and DeNisi 1996).

We complement extant research examining affective responses to individual management controls by investigating MCS affect, a broad set of positive and negative feelings pertaining to the organization's overall MCS. MCS affect contrasts with general employee affect in that MCS affect is a set of feelings specifically created by a set of management controls used by the organization, whereas employee affect includes all of the feelings employees experience, regardless of their source. For example, MCS affect may include employees' positive or negative feelings about the fairness of the organization's management controls, whereas employee affect

may include employees' feelings about their commute. In this study, we investigate whether manager-level MCS affect influences operational-level subordinates control outcomes.

Control outcomes are organization-level outcomes that are directly related to the organization's employee management controls. In other words, control outcomes represent the output of the set of employee management controls comprising the organization's MCS. For example, a large literature has examined the impact of incentives on employee task performance and effort control outcomes (Bonner and Sprinkle 2002). Control outcomes may vary based on both the organization's control problem and MCS, but include for example employee efficiency, effectiveness, and job satisfaction (Fisher 1998).

Contagion of Managers' MCS Affect

We expect managers' MCS affect to influence employees' control outcomes via contagion. We define contagion as an influencing process whereby individuals influence the emotions or behaviors of others through the conscious or unconscious induction of emotional states and behavioral attitudes (based on Schoenewolf, 1990). An extensive body of extant research has provided empirical evidence supporting contagion processes in a variety of social settings. Contagion has been largely examined by psychology and marketing scholars (see Hennig-Thurau, Groth, Paul, & Gremler, 2006 for example), but has also been studied in leadership and organizational contexts (e.g., Connelly et al., 2002; Dasborough et al. 2009). Many different moods, emotions, and feelings can be contagious, including joy, anger and fear (e.g., Cheshin, Rafaeli, and Bos 2011; Bhullar 2012), and negative feelings may be more contagious than positive feelings (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Dasborough, 2006; Sy and Choi 2013). In addition, contagion can arise in a wide variety of social settings, such as among students

(Hsee et al. 1990), teams of nurses and accountants (Totterdell et al. 1998), and managers (Barsade 2002).

While contagion can be observed in any social setting comprising at least two individuals, prior literature suggests that contagion may be particularly likely to arise in manager-subordinate relationships due to several characteristics of those relationships. First, managers are important members of workgroups due to their elevated hierarchical positions (e.g., their ability to determine career outcomes of other workgroup members). As a result, subordinates are likely to find their managers' affective states salient and attend to those states (Connelly et al., 2002). Second, subordinates are likely to hold their managers' feelings in high esteem, as low-status group members are likely to admire high-status group members (Snodgrass, 1985). As a result, subordinates are likely to be influenced by their managers' affective states. Overall, emotional contagion is likely to arise in manager-subordinate relationships (Hatfield et al., 1992, Hatfield, Cacioppo, & Rapson, 1994). Both theoretical (e.g., Bass, 1985) and experimental research (Cherulnik et al., 2001; Halverson, 2004; Lewis, 2000; Sy et al., 2005) has linked leader affect to follower affect (Gooty et al. 2014).

Although a large body of literature has examined the contagion of specific emotional states, research has yet to examine contagion of MCS affect. In other words, prior research provides evidence supporting the contagion of specific manager emotions, such as contagion of managers' angry emotions to subordinates (Johnson 2008) but does not examine how managers' affective responses to the MCS impact employees' behaviors. We expect managers' MCS affect to impact subordinates' control outcomes via contagion because employees respect and admire their manager as a high-status employee. As a result, subordinates are likely to be influenced by their managers' MCS affect. Furthermore, we expect that subordinates are likely to attend to their

manager's MCS affect because their manager holds an important position within the workgroup. The overall result is that managers' MCS affect is likely to influence their subordinates' overall control outcomes via contagion. Therefore, we make the following prediction, stated in alternative form:

> *Hypothesis 1: Managers' affective perceptions of the management control system (MCS affect) have a larger impact on subordinates' control outcomes when manager-subordinate contagion is high.*

Note that the directional impact of managers' MCS affect on subordinates' control outcomes varies based on the valance of the managers' MCS affect. In other words, we expect positive (negative) managers' MCS affect to result in more positive (negative) subordinates' control outcomes. In addition, because the extent of manager-subordinate contagion exists on a spectrum, we expect managers' MCS affect to result in a larger impact on subordinates' control outcomes when manager-subordinate contagion is high (Zhang, He and Sun 2018). To gain greater insights about manager-subordinate contagion, we next explore how the MCS influences the extent of manager-subordinate contagion.

MCS Drivers of Manager-Subordinate Contagion

We next examine the factors that influence the extent of manager-subordinate contagion. While a large literature in psychology has focused on how employee and manager individual characteristics impact contagion, such as gender, charisma, introversion, and general sensitivity to others (Doherty et al., 1995; Lundqvist, 1995; Doherty, 1997), we focus on how the MCS impacts contagion, thereby providing unique insights about manager-subordinate contagion within the MCS.

Broadly, we argue that manager-subordinate contagion of managers' MCS affect has an informational role within the MCS. In other words, managers' MCS affect provides information to subordinates about the organization's MCS and manager-subordinate contagion is the process by which this information is disseminated. Because the manager-level and operational-level MCSs likely differ, managers' MCS affect likely does not provide direct information about the subordinates' control system and hence does not feed directly into the subordinates' affective reaction to their own MCS. However, we do expect that MCS affect provides some information for employees about the company wide MCS. For example, if a business school dean complains to a business school professor that the university's provost office has treated the dean unfairly, the business school professor may infer that the university's overall MCS is unfair which creates a general negative affective state, despite the fact that the dean-level MCS likely differs from the professor-level MCS and the professor-level MCS might not be unfair at all. Thus, the managers' MCS affect provides some information to subordinates about the overall organizational MCS.

We broadly expect that manager-subordinate contagion of managers' MCS affect exerts a larger (smaller) impact on employee behavior when employees possess less (more) information about the overall organizational MCS. In other words, we expect the role of managers' MCS affect on subordinates' behavior to be inversely related to the amount of information subordinates have about the overall organizational MCS. We examine the role of manager-subordinate contagion in relation to two sources of information about the overall organizational MCS below, subordinates' understanding of the MCS and the extent of culture controls within the MCS.

The Impact of Subordinates' MCS Understanding on Manager-Subordinate Contagion

We define subordinates' understanding of the MCS as the extent to which subordinates comprehend the organization's policies, practices and values. MCS understanding is an important

precursor to effective control outcomes, and "one function of management control involves informing employees as to how they can maximize their contributions to the fulfillment of organizational objectives." (Merchant and Van der Stede 2007, page 8). Employees' understanding of the MCS is an important issue. For example, a 2004 study of 414 World-at-Work members in managerial positions found that only 13% of respondents believe non-management employees understand the value drivers of their business strategy (Merchant and Van der Stede 2007). Many individual management controls have been shown to impact employees' understanding of the organization's values and preferences, such as financial incentives and performance feedback (Farell, Kadous and Towry 2008; Farell, Kadous and Towry 2012). A related area of literature examines how management controls can decrease employees' understanding of the organization's priorities and preferences via misalignment (Kerr 1975).

We predict that manager-subordinate contagion is more likely (less likely) to occur when subordinates' understanding of the MCS is lower (higher). In other words, we expect that subordinates' understanding of the MCS decreases subordinates' reliance on their managers' MCS affect as a source of information about the organization's MCS. When subordinates' understanding of the organization's MCS is low, we expect that subordinates face difficulties developing an independent perception of the organization's MCS. Thus, they rely on their manager, who is a salient and respected workgroup member, as a source of information via manager-subordinate contagion. In contrast, when subordinates' understanding of the MCS is high, we expect that subordinates have enough information to form an independent perception of the organization's MCS. Thus, they are less reliant on their manager as a source of information, decreasing the impact of manager-subordinate contagion.

Overall, we expect less (more) manager-subordinate contagion to occur when subordinates' understanding of the MCS is high (low), consistent with the inverse relationship between subordinates' own information about the MCS and reliance on their manager as a source of information about the MCS. Therefore, we make the following directional prediction (stated in alternative form):

Hypothesis 2: Manager-subordinate contagion is negatively related to the extent to which subordinates understand the organization's management control system.

The Impact of Culture Controls on Manager-Subordinate Contagion

An organization's culture consists of the pattern of shared assumptions, beliefs, and expectations that guide members' interpretations and actions by defining appropriate behavior within an organization (Fiol 1991; Schein 1985), and culture controls consist of actions undertaken by the organization to promote the organization's culture. Culture controls require a shared agreement about values and beliefs between the organization and its employees and encourage mutual monitoring so that employees do not deviate from the group's norms and practices (Ouchi 1977; Merchant and Van der Stede 2007). Culture controls either rely on goal alignment between the organizations' desired outcomes and the employees' desired outcomes or preference alignment where, because of shared preferences, employees are motivated to contribute to the firm (Prendergast 2009; Akerlof and Kranton 2005). Examples of culture controls include employee selection and training (Campbell 2012; Abernethy, Dekker, and Schulz 2015).[2]

We predict that manager-subordinate contagion is negatively related to the intensity with which culture controls are used by the organization. In other words, we expect that the use of

[2] Note that our broad use of the term culture controls includes Merchant and Van der Stede's (2007) personnel controls.

culture controls decreases subordinates' reliance on their managers' MCS affect as a source of information about the organization by providing employees with information about the organization's values, practices, and expectations. When use of culture controls is low, we expect that subordinates face difficulties developing an independent perception of the organization's MCS. Thus, they rely on their manager, as a salient and respected workgroup member, as a source of information via manager-subordinate contagion. In contrast, when use of culture controls is high, we expect that subordinates have enough information to form an independent perception of the organization's MCS. Therefore, they are less reliant on their manager as a source of information, decreasing the impact of manager-subordinate contagion.

Overall, we expect less manager-subordinate contagion to occur when culture controls are present in the organization's MCS, and more manager-subordinate contagion to occur when culture controls are absent in the organization's MCS, consistent with the inverse relationship between subordinates' own information about the organization and reliance on their manager as a source of information about the organization. Therefore, we make the following directional prediction (stated in alternative form):

Hypothesis 3: Manager-subordinate contagion is negatively related to the extent of culture controls in the management control system.

3. METHODOLOGY

We examine a privately owned North American retail pharmacy, founded by a pharmacist about a century ago. The company grew and currently operates seven geographically dispersed stores and employs over 200 employees. Each store consists of two sub-business units, a pharmacy lead by a pharmacy manager and a retail store lead by a store manager. The 14 pharmacy managers

and store managers report to the company's corporate office, which employs about 10 people. The seven stores vary in size and location, with the smallest store consisting of 10 employees and the largest location consisting of 60 employees. Data was collected in two phases using a multi-method approach.

Phase I

First, the research team visited all seven geographic locations to observe the organization's operations and conduct semi-structured interviews. We conducted a total of 25 interviews, interviewing a variety of employees including pharmacy managers, store managers, pharmacy assistants, cashiers, and merchandisers. Importantly, we interviewed 12 of the 14 sub-business unit managers, including 7of the 7 store managers and 5 of the 7 pharmacy managers. Table 1 provides an overview of our interviews across stores and job functions. We also collected archival material from the company related to the company's MCS, including managers' performance evaluation information and turnover information. We also had several informal conversations with the Chief Operations Officer and the Director of Human Resources, who were our main points of contact throughout the data collection process. Phase one of data collection began in summer 2017.

From the interviews, we learnt that there was heterogeneity among the managers with regard to their view on the manager-level MCS. For example, one important component of the manager-level MCS is the SBU manager performance evaluation system, which was implemented one fiscal year prior to the commencement of the first phase of data collection. All SBU managers' (pharmacy managers and store managers) were evaluated using the same criteria and each SBU received individual, objective performance targets, which were used to assess SBU managers. The performance evaluation system emphasized revenue growth, rather than profitability. As a result, SBUs were required to demonstrate high revenue growth in order to

earn bonuses or merit-based pay increases. This created cross-sectional variation in SBU managers' affective reactions. For instance, one SBU manager interviewee stated:

> "We are successful here. We are generating profit. I have no problem with profit. I like my job. I want to stay open…but…I will never see a bonus. And yet somebody who goes into a store that was so poorly run that, if there were fantastic entrepreneurial [employees], there will be growth. So [they] will be profit sharing in the money that I make, even though [the other store] may still not be making money. And I think that, inherently there is something wrong with that system."

Interviews with SBU managers indicated that SBU managers perceived growth opportunities to substantially vary between SBUs. For instance, some SBUs are in rural areas, whereas others are in urban areas. One SBU manager in an urban area reported frustration with the manager-level performance evaluation system in an interview, as follows:

> "…This store always did do well. But…it is really hard to get that much more out of this market. Because we have competitors in this town all around us. As opposed to [some of the other] stores [who] have no competition in town. [Interviewee continues by naming 10 local competitors].…From here on in I will never get a bonus, or I will never get a raise because I will not be able to do what [is expected of me on my performance evaluation]. I cannot possibly [do it]. But I exceed in other things."

However, not all SBU managers responded negatively to the manager-level performance evaluation system. Some SBU managers appreciated that the new performance evaluation system was more transparent and objective than the previous system, which relied heavily on subjectivity and did not include objective performance targets. For instance, one SBU manager stated:

> "I actually really enjoy [my performance evaluation]. I love knowing the numbers and seeing the numbers…As much as it's not enjoyable when the numbers are not nice, I want to know. And I investigate it. And I want to know my numbers aren't good. Whereas before [the new performance evaluation system], we were just told if things were okay or not okay. So to see numbers in front of you now is really nice."

Overall, all SBU managers in our research setting experience the same manager-level MCS. Further, all SBUs in our research setting pursue the same SBU strategies, which

differentiates our study from prior research examining SBUs engaged in differentiated strategies and allows us to hold strategy constant (Govindarajan 1988; Govindarajan and Gupta 1985; Abernethy and Lillis 1994).

[Insert Table 1]

Phase II

In the second phase of data collection, we conducted a survey in summer 2018. We distributed online and pen-and-paper copies of the survey to the company's 204 employees.[3] We received responses from 150 employees, resulting in an overall response rate of 74% (= 150 of the 204 employees). Of those responses, 9 were not finished and therefore excluded from our analyses. Our final sample thus contains 141 usable responses, including managers, store-level employees, and corporate employees. Importantly, all 14 of the 14 sub-business unit managers completed the survey, resulting in a manager response rate of 100% (14/14). After excluding the observations from corporate employees (9) and store-level employee observations with missing variables that are relevant for our analyses (8), we are able to match the 14 sub-business unit managers to 110 employee surveys.[4] This enables us to examine the manager-subordinate contagion in each of the company's 14 sub-business units.

For each employee that participated in the survey, we made a charitable donation of CAN $15 to the charity of the store's choice. In addition, if more than 90% of the store's employees completed the survey, we doubled the total amount of money donated to charity in the store's

[3] Although the survey was offered to all employees, the first page instructions specified that employees could only respond to the survey if they were 18 years or older, which was a requirement of one of the author's university's ethical review committees.

[4] For some of our analyses, the number of employee surveys drops from 110 to 106 due to missing variables for which we want to control in these analyses.

name.[5] Further, the company's leadership encouraged employees to participate in the survey. We stressed to respondents that their survey answers were confidential and would not be shared with anyone from the company.

The survey consisted of several parts and was tailored to each employee's job function. First, all respondents were asked about their tenure, job function and store location. The remainder of the survey varied based on their answers, so that respondents received questions tailored to their sub-business unit (i.e., front store, pharmacy, head office). Next, we asked respondents about their motivation, work environment, (understanding of) the control system, and job satisfaction. Employees with management responsibilities (e.g. store and pharmacy managers) received additional questions related to this role.[6] The survey length varied based on participant's job function and tenure, with sub-business unit managers receiving the longest versions of the survey. The median time participants spent completing the online survey was approximately 17 minutes. We also supplemented survey data with publicly available archival data.

4. RESULTS

Table 3 contains summary statistics on our dependent, independent and control variables, whereas Table 4 contains correlations.

[Insert Table 3]

[Insert Table 4]

Recall that H1 predicts that managers' affective perceptions of the management control system (MCS affect) impact subordinates' control outcomes consistent with manager-subordinate

[5] In total, CAN $2,895 was donated to charitable organizations as a result of this research.
[6] We first used the survey online and provided the paper version later when we were informed that some employees preferred to complete it that way. By that time, all store and pharmacy managers had already filled in the online survey, so we were able to provide one general non-management version on paper.

contagion. To test this hypothesis, we perform an OLS regression with standard errors clustered at the store level. Our main dependent variable is *Job Satisfaction*, which is a proxy for control outcomes. Subordinates rated the following question on a Likert scale ranging from 1 (extremely dissatisfied) to 7 (extremely satisfied): How satisfied are you with your job at [Company Name]? As our main independent variables, we include a dummy for low manager MCS affect, a dummy for contagion, and the interaction between both variables. *Low Manager MCS Affect* is based on a factor of four items measured on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree): (1) The company's policies rules and rewards are implemented fairly, (2) I am paid fairly for the work that I do, (3) I trust the company to do what it says it will do, (4) The organization values my contribution to its well-being. This dummy variable equals 1 if the subordinate's manager has a below-median factor score relative to the other managers and 0 otherwise. *High Contagion* is a dummy variable that is based on the following question, measured on a Likert scale ranging from 1 (Strongly disagree) to 7 (Strongly agree): My manager's emotions affect my own emotions. *High Contagion* equals 1 if a subordinate has a below-median score relative to the other subordinates and 0 otherwise.

Next to these independent variables, we include several control variables in our regression that can influence *Job Satisfaction*. For example, we expect that the subordinates' own MCS affect, measured with a factor of the same four items as the managers' MCS Affect, positively influences *Job Satisfaction.* Moreover, the extent to which subordinates comprehend the organization's policies, practices and values can positively affect *Job Satisfaction*. As such, we include *Understanding,* a factor of six items measured on a Likert scale ranging from 1 (very unclear understanding) to 7 (very clear understanding): Please indicate how clearly you understand each of the following items (1) The rules and procedures at work, (2) This company's values and

mission, (3) How my compensation is determined, (4) What we stand for as a company, (5) What my pay and benefits are, (6) The instructions and feedback my manager provides. Relatedly, we control for elements of the subordinates' control system and external influences. Particularly, we control for culture control, job flexibility and pay competitiveness as judged by the manager and *the unemployment rate* in the region as derived from the census data. *Culture Control* is the factor of three items answered by the manager and measured on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree): (1) The company's values are an important part of training for new employees, (2) We have a lot of events to promote and celebrate the organization's values and beliefs, (3) When making hiring decisions, we put a lot of emphasis on how well a potential employee will "fit" with the company's values. The dummy *Low Rules Flexibility* equals 1 if the subordinates' manager rates the following question below the median relative to the other managers: The rules and procedures allow my subordinates a lot of flexibility in how they do their job. Likewise, *Low Pay Competitiveness* equals 1 if the subordinates' manager rates the following question below the median relative to the other managers: My subordinates' pay is higher than at similar jobs at other local companies. Finally, *Unemployment Rate* is the unemployment rate for the subdivision in which the subordinates' store is located as reported in the census data.

In sum, our general model is:

$$Job\ Satisfaction = \beta_0 + \beta_1 Low\ Manager\ MCS\ Affect + \beta_2 High\ Contagion + \beta_3 Low\ Manager\ MCS\ Affect \times High\ Contagion + \beta_4 Subordinate\ Understanding + \beta_5 Subordinate\ MCS\ Affect + \beta_6 Culture\ Control + \beta_7 Low\ Rules\ Flexibility + \beta_8 Low\ Pay\ Competitiveness + \beta_9 Unemployment\ Rate + \varepsilon$$

Table 5 Column 1 presents results of this model. First, we examine the impact of our independent variables of interest, *Low Manager MCS Affect*, *High Contagion*, and *Low Manager MCS Affect* × *High Contagion*. The coefficient on *Low Manager MCS Affect* is negative and

significant at the 10% level (coef. 0.51, $p<0.10$) and the coefficient on *High Contagion* is not statistically significant (coef. 0.315, $p=0.43$). The coefficient on *Low Manager MCS Affect* × *High Contagion* is negative and significant at the 5% level (coef. -1.07, $p<0.05$). This result suggests that when high contagion is present, subordinates whose managers' MCS affect is below the median MCS affect experience lower job satisfaction than when high contagion is absent. In other words, among subordinates whose managers' MCS affect is below median experience, the presence of high contagion decreases subordinates' job satisfaction by approximately 15% (-1.07/7.0 * 100%). Taken together, these results are consistent with our first hypothesis and indicate that the presence of high contagion results in a more negative impact of managers' low MCS affect on subordinates' job satisfaction.

As expected, the coefficient on *Subordinate MCS Affect* is positive and significant at the 1% level (coef. = 0.24, $p < 0.01$), consistent with a positive association between subordinates' own feelings and emotions about the MCS and their job satisfaction as well. In addition, the positive and significant coefficient on *Subordinate Understanding* (coef. 0.24, $p<0.01$) suggests that subordinates with a better understanding of the MCS are more satisfied with their job. All other control variables (*Low Rules Flexibility, Low Pay Competitiveness,* and *Big Store*) are insignificant ($p>0.40$).

Hypothesis 2 and 3 posit that manager-subordinate contagion is negatively related to the extent to which subordinates understand the organization's management control system and to the extent of culture controls in the MCS, respectively. We test these hypotheses with the following binary logistic regression, clustering standard errors at the store level:

$$High\ Contagion = \beta_0 + \beta_1 Subordinate\ Understanding + \beta_2 Culture\ Control + \beta_3 Manager\ Tenure + \beta_4 Subordinate\ Tenure + \beta_5 Subordinate\ Sensitivity\ to\ Others + \beta_6 Big\ Store + \varepsilon$$

Our main dependent variable (*High Contagion*) and independent variables (*Subordinate Understanding* and *Culture Control*) are discussed above. We also include several control variables in this regression. First, we include the length of time a manager has held his/her position (*Manager Tenure*) and the length of time the subordinate has been employed by the organization (*Subordinate Tenure)*, as we expect both variables to increase the likelihood that subordinates develop close relationships with their managers. Second, we control for subordinates inherent predisposition to react to the emotions of others with the measure *Subordinate Sensitivity to Others*, as subordinates who are more sensitive to other people's emotion may exhibit greater susceptibility to contagion. Third, we control for the size of the workgroup with the binary variable *Big Store*, a dummy variable that equals 1 if a subordinate works in a store that is in the top quartile based on number of employees relative to the other stores, and 0 otherwise, as we expect the size of the workgroup to influence subordinates ability to interact directly with their managers.

Table 5 Column 2 presents results of this model. First, we examine the independent variable of interest for our second hypothesis, *Subordinate Understanding*. The coefficient on *Subordinate Understanding* is negative and significant at the 1% level (coef.= -0.347, $p<0.01$). This result suggests that a one unit increase in *Subordinate Understanding* decreases the probability a subordinate experiences *High Contagion* by approximately 29% (odds ratio: 0.707; 0.707-1*100% = 29%; untabulated). This result confirms our second hypothesis by indicating that subordinates' understanding of the organization's policies, practices and values decreases the extent to which they are influenced by their managers' emotions.

Next, we examine the independent variable of interest for our third hypothesis, *Culture Control*. The coefficient on *Culture Control* is negative and significant at the 1% level (coef. = -0.212, $p<0.01$). This result suggests that a one point increase in *Culture Control* decreases the probability a subordinate experiences *High Contagion* by approximately 19% (odds ratio: 0.809; 0.809-1*100% = 19%; untabulated). Therefore, this result confirms our third hypothesis by showing that the presence of culture controls decreases the extent to which subordinates' emotions are affected by their manager's emotions.

Finally, results for all control variables are in line with our expectations, as indicated by the positive and significant coefficients on *Manager Tenure*, *Subordinate Tenure* and *Subordinate Sensitivity to Others*, and the negative and significant coefficient on *Big Store*.

Robustness Tests

We run several untabulated additional regressions to test the robustness of our measures. First, we include a different proxy for subordinates' control outcomes, which was measured by *Job Satisfaction* in our first regression. We rerun the first model, replacing *Job Satisfaction* with *Organizational Citizenship Behavior* (OCB) as the dependent variable. OCB is behavior that contributes indirectly to the organization through the maintenance of the organization's social system (Organ, 1997). We operationalize this variable by taking the average of the following six items, measured on a scale from 1 (never) to 7 (always): How often do you do each of the following: (1) Stay after the scheduled end of your shift if needed, (2) Share your ideas to improve your workplace, (3) Represent the company favorably to outsiders, (4) Waste time at work, (5) Defend the organization when others criticize it and (6) Keep well-informed about things that affect your job. Note that we reverse-coded the fourth item. Results indicate that the main effects of *Low Manager MCS Affect* and *High Contagion* on *OCB* are positive and insignificant.

Importantly, the interaction effect is still negative and insignificant (coef: -0.799, p=0.039), indicating that the results related to our first hypothesis are robust to using *OCB* as an alternative dependent variable.

Second, in our two original regressions, we replace the independent variable *Subordinate Understanding* by an alternative measure: *Conflicting Messages*. *Conflicting Messages* is measured on a Likert Scale ranging from 1 (strongly disagree) and 7 (strongly agree). Subordinates indicated their extent of agreement with the following question: I feel like I often receive conflicting messages from my organization about what is important at work. We expect this variable to have the opposite effect of *Subordinate Understanding*. Indeed, the more conflicting messages subordinates receive, the more dissatisfied they should be with their job, and the higher the influence of their manager's emotions (*High Contagion)*. Results indicate that *Conflicting Message*s is negative and significant at the 1% in the first regression (coef. = -0.22, $p<0.01$) and positive and significant at the 1% level in the second regression (coef. = 0.563, p=0.01), consistent with our expectations.

5. CONCLUSION

In this study, we complement extant research by examining the impact of managers' perceptions of the manager-level MCS, specifically managers' positive and negative feelings pertaining to the manager-level MCS, on operational-level employees' control outcomes using field data. We expect managers' MCS affect to influence employees' control outcomes via contagion, an influencing process whereby individuals influence the emotions or behaviors of others through the conscious or unconscious induction of emotional states and behavioral attitudes (based on Schoenewolf, 1990). We expect that subordinates are likely to be influenced by their

managers' MCS affect because employees respect their manager as a high-status employee and because their manager holds an important position within the workgroup. Thus, we predict that managers' MCS affect is likely to influence their subordinate's overall control outcomes via contagion.

We also examine the factors that influence the extent of manager-subordinate contagion, focusing on how the MCS impacts contagion. Broadly, we argue that manager-subordinate contagion of managers' MCS affect has an informational role within the MCS. Therefore, we expect that manager-subordinate contagion of managers' MCS to be negatively related to the amount of information subordinates have about the MCS. Thus, our second and third hypotheses predict a negative relationship between manager-subordinate contagion and two elements of the MCS environment that influence employees' information about the MCS, employees' understanding of the MCS and the use of culture controls within the MCS respectively.

We test our predictions using a proprietary survey conducted in a North American retail pharmacy that allows us to examine the impact of cross-sectional variation in the operational-level MCS while holding the manager-level MCS constant. In addition to our survey data, we collected interview data from 25 company employees (including 12 of the 14 sub-business unit managers), archival data from the organization, and archival data from publicly available sources.

Results confirm our hypotheses. First, results support the notion that managers' MCS affect influences subordinates' control outcomes via manager-subordinate contagion. Specifically, subordinates who exhibit high manager-subordinate contagion indicate lower job satisfaction when their manager has negative feelings about the manager-level MCS. Second, results support the notion that the organization's MCS influences manager-subordinate contagion. Specifically, we find evidence supporting H2, as results indicate that subordinates' understanding of the MCS

negatively impacts manager-subordinate contagion. Further, we find evidence supporting H3, as results indicate that the extent of use of culture controls negatively impacts manager-subordinate contagion. We show that our results are robust to alternative measures. Taken together, our results provide support for the notion that manager-subordinate contagion informs subordinates about the organizations' MCS and as a result has a more limited role on subordinates' control outcomes when subordinates' independent information about the organization is high.

This paper contributes to the literature on management accounting systems in several ways. First, we complement prior literature by examining how managers' reactions to the manager-level MCS impact subordinates' reactions to the operational-level MCS (Christ and Vance 2018). In other words, our results indicate that when manager-subordinate contagion is high, managers' affective responses to the manager-level MCS impacts their subordinates' control outcomes, even though the manager-level MCS has no impact on subordinates. Our results illustrate the potential for managers' reactions to their controls to "ripple" throughout their workgroups, providing further evidence of the far-reaching consequences of the manager-level MCS (Christ and Vance 2018). Thus, we answer Hopwood's (1974) call for research exploring the interrelationships between the control systems of different levels of an organizational hierarchy by showing that operational-level employees' reactions to the operational-level MCS are influenced by their managers' affective response to the manager-level MCS.

Second, we show that characteristics of the organization's MCS impact manager-subordinate contagion, which further illuminate the role of manager-subordinate relationships. Specifically, our results indicate that manager-subordinate relationships play an important role in informing subordinates' expectations about the MCS. Further, we find that subordinates' understanding of the MCS negatively impacts manager-subordinate contagion, which provides

important information about the directing role of manager-subordinate relationships. In addition, we find that the inclusion of culture controls within the MCS negatively impacts manager-subordinate contagion, which provides further evidence that manager-subordinate relationships inform subordinates about the organization's expectations. Taken together, our results complement prior literature on direction within the MCS (e.g., Farell, Kadous and Towry 2008; Farell, Kadous and Towry 2012) by providing evidence of the directing role of manager-subordinate relationships, a previously unexamined aspect of the control environment.

Our study also presents several insights for managers. Specifically, our results indicate that manager-subordinate contagion is more pronounced when employees' understanding of the MCS, and the organization's use of culture controls, is low. Thus, we show that when employees' own understanding of the organization's controls and values is low, they are likely to rely on their managers as information sources. Although not necessarily problematic ipso facto, reliance on managers as information sources can result in unintended consequences for the organization when managers' affective perceptions of the manager-level are negative. Our field evidence provides strong evidence of the potentially unintended consequences of managers' negative MCS affect on subordinates' control outcomes, as we show a "ripple effect" of managers' MCS affect via manager-subordinate contagion throughout the organization. Thus, our evidence informs managers considering changes to the manager-level MCS by showing that when manager-subordinate contagion is high, changes that negatively impact managers' affective reaction can have an important rippling effect on the effectiveness of the operational-level MCS.

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TABLE 1
Number of Interviews across Stores and Job Functions

	Store 1	Store 2	Store 3	Store 4	Store 5	Store 6	Store 7	TOTAL
Store Manager	1	1	1	1	1	1	1	7
Store Subordinate	1	1	1	1	1	1	1	7
Pharmacy Manager	1		1	1	1		1	5
Pharmacy Subordinate	1		1	1	1	1	1	6
TOTAL	4	2	4	4	4	3	4	25

Store subordinate positions include cashiers and merchandisers. Pharmacy subordinate positions include pharmacists and pharmacy assistants.

TABLE 2
List and Description of Proxies

Proxy	Description
Job Satisfaction	*Job Satisfaction* is measured on a Likert scale ranging from 1 (extremely dissatisfied) to 7 (extremely satisfied) with the following question: How satisfied are you with your job at the company?
MCS Affect	*MCS Affect* is the factor of four items measured on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree): (1) The company's policies rules and rewards are implemented fairly, (2) I am paid fairly for the work that I do, (3) I trust the company to do what it says it will do, (4) The organization values my contribution to its well-being.
Subordinate MCS Affect	*Subordinate MCS Affect* is the *MCS Affect* proxy for subordinates.
Low Manager MCS Affect	*Low Manager MCS Affect* is a dummy that equals 1 if the subordinate's manager has a below-median *MCS Affect* score relative to the other managers and 0 otherwise.
High Contagion	*High Contagion* is a dummy variable that equals 1 if subordinates' score measured on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree) on the following question is above the median subordinate score: My manager's emotions affect my own emotions.
High Contagion X Low Manager MCS Affect	*High Contagion X Low Manager MCS Affect* is the interaction between *High Contagion* and *Low Manager MCS Affect.*
Understanding	*Understanding* is the factor of six items measured on a Likert scale ranging from 1 (very unclear understanding) to 7 (very clear understanding): Please indicate how clearly you understand each of the following items (1) The rules and procedures at work, (2) This company's values and mission, (3) How my compensation is determined, (4) What we stand for as a company, (5) What my pay and benefits are, (6) The instructions and feedback my manager provides.
Subordinate Understanding	*Subordinate Understanding* is the *understanding* proxy for subordinates.
Culture Control	*Culture Control* is the factor of three items answered by the manager and measured on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree): (1) The company's values are an important part of training for new employees, (2) We have a lot of events to promote

	and celebrate the organization's values and beliefs, (3) When making hiring decisions, we put a lot of emphasis on how well a potential employee will "fit" with the company's values.
Conflicting Messages	*Conflicting Messages* is measured on a Likert Scale ranging from 1 (strongly disagree) and 7 (strongly agree). Subordinates indicated their extent of agreement with the following question: I feel like I often receive conflicting messages from my organization about what is important at work.
Low Rules Flexibility	*Low Rules Flexibility* is a dummy that equals 1 if the subordinate's manager rates the following question below the median relative to the other managers: The rules and procedures allow my subordinates a lot of flexibility in how they do their jobs.
Low Pay Competitiveness	*Low Pay Competitiveness* is a dummy that equals 1 if the subordinate's manager rates the following question below the median relative to the other managers: My subordinates' pay is higher than at similar jobs at other local companies.
Manager Tenure	*Manager Tenure* is the number of years a subordinate's manager is in his/her current manager position.
Subordinate Tenure	*Subordinate Tenure* is the number of years a subordinate has been working for the company. Values below 1 indicate fractions of years (e.g. 0.5 equals 6 months).
Subordinate Sensitivity to Others	*Subordinate Sensitivity to others* is the factor of two items measured on a Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree): I am motivated at work because (1) I like helping others (2) I want to avoid my managers' negative reactions.
Big Store	*Big Store* is a dummy that equals 1 if a subordinate works in a store that is in the top quartile based on number of employees relative to the other stores, and 0 otherwise.
Unemployment Rate	*Unemployment Rate* is the unemployment rate for the subdivision in which the subordinate's store is located as reported in the census data.

TABLE 3
Descriptive Statistics

Variable	Mean	Median	Std. Dev.	Min.	Max.
Job Satisfaction	5.25	6.00	1.36	1.00	7.00
Subordinate MCS Affect	0.02	0.22	1.65	-4.47	2.93
Low Manager MCS Affect	0.44	0.00	0.50	0.00	1.00
High Contagion (HC)	0.45	0.00	0.50	0.00	1.00
HC X Low Manager MCS Affect	0.23	0.00	0.42	0.00	1.00
Subordinate Understanding	0.06	0.28	1.86	-6.61	2.47
Culture Control	-0.08	-1.60	1.60	-1.60	1.87
Conflicting Messages	3.68	4.00	1.88	1.00	7.00
Low Rules Flexibility	0.35	0.00	0.48	0.00	1.00
Low Pay Competitiveness	0.80	1.00	0.40	0.00	1.00
Manager Tenure	5.22	5.00	3.71	0.25	10.00
Subordinate Tenure	9.46	5.00	10.53	0.13	42.00
Subordinate Sensitivity to Others	-0.05	0.13	1.22	-4.27	1.22
Big Store	0.46	0.00	0.50	0.00	1.00
Unemployment Rate	9.88	9.70	1.02	7.70	11.50

Table 3 provides summary statistics for our dependent, independent and control variables.

TABLE 4
Correlations

	(1)	(2)	(3)	(4)	(3)X(4) = (5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Job Satisfaction (1)	1														
Subordinate Understanding (2)	**0.49**	1													
Low Manager MCS Affect (3)	-0.12	**-0.34**	1												
High Contagion (4)	**-0.20**	**-0.24**	0.12	1											
(3) X (4) = (5)	**-0.29**	**-0.29**	**0.62**	**0.59**	1										
Low Rules Flexibility (6)	-0.04	-0.06	**0.63**	0.07	**0.38**	1									
Unemployment Rate (7)	0.06	-0.02	**-0.33**	0.08	**-0.20**	**-0.71**	1								
Low Pay Competitiveness (8)	-0.06	-0.09	**0.16**	0.09	0.11	0.08	-0.01	1							
Subordinate Tenure (9)	0.04	-0.01	**-0.20**	**0.22**	**-0.16**	**-0.26**	**0.27**	0.09	1						
Big Store (10)	0.12	-0.05	**-0.27**	-0.12	-0.16	**-0.68**	**0.47**	-0.08	0.1	1					
Culture Control (11)	-0.04	-0.14	0.15	-0.08	0.08	-0.15	**-0.20**	**-0.55**	-0.13	**0.19**	1				
Manager Tenure (12)	0.08	-0.09	-0.01	0	0.04	**-0.31**	**0.19**	**-0.39**	-0.09	**0.61**	**0.55**	1			
Subordinate Sensitivity to others (13)	0.06	0.03	0.04	**0.23**	**0.16**	0.07	-0.03	-0.02	-0.11	0.03	-0.01	0.07	1		
Subordinate MCS Affect (14)	**0.50**	**0.61**	**-0.23**	**-0.28**	**-0.29**	-0.08	-0.07	-0.06	-0.1	-0.02	-0.01	0.02	0.09	1	
Conflicting Messages (15)	**-0.47**	**-0.42**	0.03	**0.40**	**0.37**	-0.02	-0.01	0.05	0.14	0.08	0.02	0.02	-0.01	**-0.36**	1

Coefficients in bold are significant at the two-tailed $p < 0.05$ level.

TABLE 5
Regression Models

Variable	OLS (1) Job Satisfaction	Logit (2) High Contagion
Subordinate MCS Affect	0.261*** (0.008)	-
Low Manager MCS Affect	0.512* (0.061)	-
High Contagion (HC)	0.315 (0.428)	-
HC X Low Manager MCS Affect	-1.074** (0.011)	-
Subordinate Understanding	0.240*** (0.003)	-0.347*** (0.001)
Culture Control	0.098 (0.438)	-0.212*** (0.001)
Low Rules Flexibility	0.553 (0.487)	-
Low Pay Competitiveness	0.123 (0.635)	-
Manager Tenure	-	0.189*** (0.002)
Subordinate Tenure	-	0.065** (0.036)
Subordinate Sensitivity to others	-	0.569*** (0.000)
Unemployment Rate	0.323 (0.396)	-
Big Store	-	-1.562*** (0.000)
Constant	1.640 (0.669)	-1.184*** (0.001)
Observations	110	106
adj R^2	0.311	
Pseudo R^2		0.193

*, **, *** indicate significance at the two-tailed 0.10, 0.05, 0.01 level, respectively. Coefficients and (p-values) provided. Hypothesized directional relations are in bold and their p-values are one-tailed. All other p-values are two-tailed.